

## WHAT IS CLAIMED IS:

1. An image interpolation method, comprising:

acquiring a first image and a second image;  
computing a matching between the first image and the second image by detecting points which correspond between the images; and

generating a corresponding point file based on the matching, where the corresponding point file comprises positional information on the corresponding points and difference data on attribute values of the corresponding points.

2. An image interpolation method according to Claim 1, wherein the difference data on attribute values comprises a difference between an attribute value of a point in the first image and an attribute value of a corresponding point in the second image.

3. An image interpolation method according to Claim 1, wherein said attribute values of the corresponding points comprises color values of the corresponding points.

4. An image interpolation method, comprising:

acquiring a corresponding point file which describes a matching result of a first image and a second image wherein the corresponding point file comprises positional information on points which correspond between the first image and the second image and difference data of attribute values of points which correspond between the first image and the second image; and

generating an intermediate image based on the first image and the second image by performing interpolation based on the first image and the corresponding point file.

5. An image interpolation apparatus, comprising:

an image input unit which acquires a first image and a second image; and

a matching processor which computes a matching between the first image and the second image and which generates a corresponding point file by detecting points that correspond between the images,

wherein the corresponding point file comprises positional information on the points that correspond between the images and difference data of pixel values on the points that correspond between the images.

6. An image interpolation apparatus according to Claim 5,

wherein said matching processor detects points on the second image that correspond to lattice points of a mesh provided on the first image, and based on a thus detected result a destination polygon corresponding to the second image is defined on a source polygon that constitutes the mesh on the first image.

7. An image interpolation apparatus, comprising:

a communication unit which acquires a corresponding point file which describes a matching result of a first image and a second image wherein the corresponding point file comprises positional information on points which correspond between the first image and the second image and difference data of attribute values of points which correspond between the first image and the second image; and

an intermediate image generator which generates an intermediate image based on the first image and the second image by performing interpolation based on the first image and the corresponding point file.

8. An image interpolation apparatus according to Claim 7, further comprising a display unit which displays at least the intermediate image.

9. An image interpolation apparatus according to Claim 7, further comprising a corresponding point file storage unit for storing the corresponding point file in a manner such that the corresponding point file is associated with the first image.

10. An image interpolation apparatus according to Claim 8, further comprising a corresponding point file storage unit for storing the corresponding point file in a manner such that the corresponding point file is associated to the first image.

11. An image interpolation apparatus according to Claim 7, wherein said intermediate image generator generates said intermediate image by moving a point within the first image according to the positional information and varying the attribute value of the point based on the difference data.

12. An image interpolation apparatus according to Claim 8, wherein said intermediate image generator generates said intermediate image by moving a point within the first image according to the positional information and varying the attribute value of the point based on the difference data.

13. An image interpolation apparatus according to Claim 9, wherein said intermediate image generator generates said

intermediate image by moving a point within the first image according to the positional information and varying the attribute value of the point based on the difference data.

14. An image interpolation method, comprising:

acquiring a matching result computed between a first image and a second image; and

generating an intermediate image based on the first image and second image without referring to the second image by acting upon the first image based on the matching result and thus varying a position and a value of pixels included in the first image.

15. A data medium storing a computer program executable by a computer, the program comprising the functions of:

acquiring a first image and a second image;

computing a matching between the first image and the second image by detecting points which correspond between the images; and

generating a corresponding point file based on the matching where the corresponding point file comprises positional information on the corresponding points and difference data on attribute values of the corresponding points.

16. A data medium storing a computer program executable by a computer, the program comprising the functions of:

acquiring a corresponding point file which describes a matching result of a first image and a second image wherein the corresponding point file comprises positional information on points which correspond between the first image and the second image; and difference data of attribute values of points which correspond between the first image and the second image; and

generating an intermediate image based on the first image and the second image by performing interpolation based on the first image and the corresponding point file.

17. A data medium storing a computer program executable by a computer, the program comprising the functions of:

acquiring a matching result computed between a first image and a second image; and

generating an intermediate image based on the first image and second image without referring to the second image by acting upon the first image based on the matching result and thus varying a position and a value of pixels included in the first image.

19. An image interpolation apparatus according to Claim 5,  
wherein said matching processor entropy-codes the difference  
data and thereafter stores the entropy-coded difference data  
in the corresponding point file.